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पश्चिम मध्य रेल
West Central Railway

महाप्रबंधक कार्यालय
इंजीनियरिंग विभाग, जबलपुर

General Manager's Office
Engineering Deptt., Jabalpur

Date: 18.10.2024

No.: W-HQ/W-4/Track-II/Policy/Circular/27

Sr. DEN / Co
JBP, BPL & KOTA

Sub: Instruction for Laying and Maintenance of SEJ on sharp curves.

Please find herewith enclosed CTE Circular No. 27/2024-25 for Instruction for Laying and Maintenance of SEJ on sharp curves for wide circulation in field up to the lowest level. This is for kind information and necessary action please.

DA: As above.

(Rohit Singh Raghuvanshi)
Dy.CE/Track/HQ

- C/- (i) PCE/WCR, for kind information pls.
(ii) CTE/WCR, for kind information pls.



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CTE Circular No. 27 / 2024-25

Sub: Instruction for Laying and Maintenance of SEJ on sharp curves.

IRPWM para 328 (2) stipulates that:

The improved SEJs (RT-6902, RT-6914, RT-6922, RT-6930) may be located on curves up to 2°. For curves beyond 2° and up to 4°, ISEJs shall be laid to Drg. No. RT-8924 (80 mm max Gap) or RT-8926 (65 mm max Gap) for 60 Kg BG track with the approval of CTE.

Therefore, the following points should be strictly followed during laying and maintenance of ISEJ laid on curve more than 2° & upto 4°:

A. Minimum track condition for laying of ISEJs:

1. The minimum clean cushion of 250 mm shall be provided at the installation of SEJ locations.
2. Cess and drainage should be proper.
3. Ballast profile should be as per IRPWM para 212.
4. Condition of fitting should be fully intact. Toe load of ERC should be checked and ERC replaced, if required.

B. Following points shall be kept in mind before installation of SEJ/ISEJs:

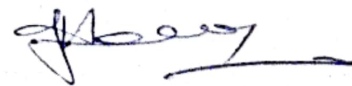
1. The SEJ/ISEJs should be thoroughly examined visually for any manufacturing defect including surface crack and notching.
2. When SEJs are to be inserted into the track it should be ensured that the stock rails, tongue rails and other fitting are of the same assembly and are with correct match marking.
3. The SEJ should be preassembled and checked for their final dimensional requirement before insertion in the track. The precaution will avoid forcible insertion of SEJs without correct fitment.
4. No packing pieces should be used underneath tongue of stock rails for adjustment of rail heights of alignments.
5. The ISEJs after laying in field should be personally checked by SSE's to ensure correct laying, positioning and aligning and this fact should be mentioned in SEJ register.

C. Inspection and Maintenance:

1. The inspection and maintenance of ISEJs laid on curves more than 2° & upto 4° curve should be done strictly in accordance with the instructions contained in IRPWM-2020 with latest correction slip.
2. While doing machine packing sleeper laid with special chairs under the ISEJs should be manually packed immediately after tamping by machine.
3. Oiling and greasing of tongue rails of SEJ and tightening of fastenings shall be done simultaneously. Necessary oil/grease should be applied externally on the fishing planes of various parts of SEJ.
4. The complete oiling and greasing of SEJ shall be done by dismantling the ISEJ only at the time of de-stressing of the concerned LWR. The work shall be done in sequence described below under traffic block:
 - a) The nuts and chairs of ISEJ shall be removed.
 - b) A gap shall be created between tongue and stock rail and their interfaces shall be greased after cleaning the faces with wire brush.
 - c) Similarly interfaces of chairs and tongue rails that of chair and stock rail shall be greased after cleaning.
 - d) The stock of tongue rails shall be reset.
 - e) Bolts of chairs shall be oiled and nuts tightened after replacing the chairs.
5. For regular Maintenance of SEJs, para 345 (6) (a) & (b) of IRPWM-2020 strictly followed.
6. It shall be ensured that SEJ/ISEJs gap i.e. gap between tongue rail and other stock/tongue rail ends shall not exceed maximum designed gap at any time.
7. Any other defects/deficiencies clearly visible shall be noted e.g. unserviceable sleepers, loose or missing fittings, mud pumping etc. and shall also be attended.
8. While providing curved check rail (for >2° to upto 4°) versine to be checked as per relevant RDSO drawing.
9. Beside IRPWM stipulations, as good maintenance practice to ensure smooth riding, alignment and unevenness at SEJs shall be measured every month (during 1st week of the month).

D. Following are the responsibilities of Railway officials with reference to laying and maintenance of ISEJs on curves more than 2° & upto 4°:-

SN	Official	Responsibility
1.	Divisional Engineer/ Sr. Divisional Engineer	Shall specify the coldest and hottest months in which fortnightly observation of gaps at ISEJs and movement of LWR /CWR at center are done.
2.	Assistant Divisional Engineer	Shall inspect all ISEJs laid on 4° curve and movement at center of LWR/CWR at every 3 months preferably in hottest and coldest month of the year and record his observation in the LWR/CWR register.
3.	Inspection by SSE/JE/P.Way	a) ISEJs shall be checked, packed and aligned, if necessary. Oiling and greasing of tongue rail and stock rails of ISEJs and tightening of fastening shall be done simultaneously.



SN	Official	Responsibility
		b) Every week during two coldest and hottest months on rotation by SSE/P.Way (In charge) and JE/SSE/P.Way (Sectional). Otherwise once in a month on rotation by SSE/P.Way (Incharge) and JE/SSE/P.Way (Sectional).
4.	Mate	To inspect SEJ and LWR/CWR under his jurisdiction frequently, especially during the hottest part of the afternoons in summer and report any unusual occurrence on LWR/CWR to JE/SSE/P.Way to obtain further order.
5.	Keyman	a) Periodical (fortnightly) oiling and greasing of SEJ, checking and retightening of fastenings at SEJ and other sleepers, if necessary. b) Tighten loose fittings and replacement of missing fastenings not requiring lifting or slewing of track in accordance with Para 345(5) (a). c) To watch for sun kinks, loose or missing fastening which may result in buckling or any damage to LWR/CWR and SEJ. On noticing any buckling or damage to track, the Keyman shall take necessary action to protect the track and report the same immediately to JE/SSE/P.Way (sectional), SSE/P.Way (In-charge), and Station Master. However, the Keyman will continue to perform duties of daily inspection. d) To keep a sharp vigil in cold mornings, especially during winters to detect any fractures which may occur, in case of rail/weld fracture, the Keyman shall take prompt action to protect the track and carry out emergency repairs to permit the restoration of traffic promptly and report to SSE/P.Way (In-charge), JE/SSE/P.Way (Sectional) and nearest Station Master.
6.	Cold Weather patrolman	Shall patrol the track during the coldest part of the night and lookout for welds/rail fractures and excessive gaps at SEJ.

Extant instruction & maintenance practices for straight track & curves upto 2° shall examine the same.

During inspections, Sr. DEN/ADEN shall invariably check the details of SEJ inspections and attention thereof to ensure proper maintenance of SEJs. Kindly ensure circulation of the instructions down to field level for strict adherence.


 (Anoop Kumar)
 Chief Track Engineer